



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	09/866,391-Conf. #4952
Filing Date	May 24, 2001
First Named Inventor	Gregory J. Wilson
Art Unit	1742
Examiner Name	W. A. Nicolas
Attorney Docket Number	291958157US2

Sheet	1	of	10
-------	---	----	----

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
GJ		US-08/940,524	09-30-1997	Bleck et al.	
		US-08/990,107	12-15-1997	Hanson et al.	
		US-09/114,105	07-11-1998	Woodruff et al.	
		US-09/618,707	07-18-2000	Hanson et al.	
		US-09/679,928		Woodruff et al.	
		US-1,526,644	02-17-1925	Pinney	
		US-1,881,713	10-11-1932	Laukel	
		US-10/729,349		Klocke	
		US-10/729,357		Klocke	
		US-10/817,659		Wilson et al.	
		US-2,256,274	09-16-1941	Boedecker et al.	
		US-2001-0024611	09-27-2001	Daniel Woodruff	
		US-2001-0032788	10-25-2001	Daniel Woodruff	
		US-2001-0043856	11-22-2001	Daniel Woodruff	
		US-2002-0008036	01-24-2002	Hui Wang	
		US-2002-0008037	01-24-2002	Gregory Wilson	
		US-2002-0032499	03-14-2002	Gregory Wilson	
		US-2002-0046952	04-25-2002	Lyndon Graham	
		US-2002-0079215	06-27-2002	Wilson et al.	
		US-2002-0096508	07-25-2002	Weaver et al.	
		US-2002-0125141	09-12-2002	Gregory Wilson	
		US-2002-0139678	10-03-2002	Gregory Wilson	
		US-2003-0038035	02-27-2003	Gregory Wilson	
		US-2003-0062258	04-03-2003	Daniel Woodruff	
		US-2003-0070918	04-17-2003	Kyle Hanson	
		US-2003-0127337	07-10-2003	Kayle Hanson	
		US-2004-0031693	02-19-2004	Linlin Chen	
		US-2004-0055877	03-25-2004	Gregory Wilson	
		US-2004-0099533	05-27-2004	Gregory Wilson	
		US-3,309,263	03-14-1967	Grobe	
		US-3,616,284	10/1971	Bodmer et al.	
		US-3,664,933	05-23-1972	Clauss	
		US-3,706,635	12-19-1972	Kowalski	
		US-3,706,651	12-30-1970	Leland	
		US-3,716,462	02-13-1973	Jensen	
		US-3,798,003	03-19-1974	Ensley et al.	
		US-3,878,066	04-15-1975	Dettker et al.	
		US-3,930,963	01-06-1976	Polichette et al.	
		US-3,968,885	07-13-1976	Hassan et al.	
		US-4,000,046	12-28-1976	Weaver	
		US-4,022,679	05-10-1977	Kozio et al.	
		US-4,030,015	10-20-1975	Herko et al.	
		US-4,046,105	09-06-1977	Gomez	
		US-4,072,557	02-07-1978	Schiel	
		US-4,082,638	04-04-1978	Jumer	
		US-4,113,577	09-12-1978	Ross et al.	

Examiner Signature	<i>W. A. Nicolas</i>	Date Considered	2/18/2005.
-----------------------	----------------------	--------------------	------------



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	09/866,391-Conf. #4952
Filing Date	May 24, 2001
First Named Inventor	Gregory J. Wilson
Art Unit	1742
Examiner Name	W. A. Nicolas
Attorney Docket Number	291958157US2

Sheet	2	of	10
-------	---	----	----

	US-4,134,802	01-16-1976	Herr	
	US-4,137,867	02-06-1979	Aigo	
	US-4,165,252	08-21-1979	Gibbs	
	US-4,170,959	10-16-1979	Aigo	
	US-4,222,834	09-16-1980	Bacon et al.	
	US-4,238,310	12-09-1980	Eckler et al.	
	US-4,246,088	01-20-1981	Murphy et al.	
	US-4,259,166	03-31-1981	Whitehurst	
	US-4,287,029	09-01-1981	KOUICHI SHIMAMURA	
	US-4,304,641	12-08-1981	Grandia et al.	
	US-4,323,433	04-06-1982	DAVID M. LOCH	
	US-4,341,629	07-27-1982	Uhlinger	
	US-4,360,410	11-23-1982	Fletcher et al.	
	US-4,378,283	03-29-1983	MICHAEL SEYFFERT	
	US-4,384,930	05-24-1983	Eckles	
	US-4,391,694	07-05-1983	BENGT W. RUNSTEN	
	US-4,422,915	12-27-1983	Wielonski et al.	
	US-4,431,361	02-14-1984	Bayne	
	US-4,437,943	03-20-1984	ALEXANDER F. BECK	
	US-4,440,597	04-03-1984	Wells et al.	
	US-4,443,117	04-17-1984	Muramoto et al.	
	US-4,449,885	05-22-1984	Hertel et al.	
	US-4,451,197	05/1984	Lange	
	US-4,463,503	08-07-1984	ROBERT D. APPLGATE	
	US-4,466,864	08-21-1984	DUANE E. BACON	
	US-4,469,566	09-04-1984	Wray	
	US-4,475,823	10-09-1984	Stone	
	US-4,480,028	10-30-1984	Kato et al.	
	US-4,495,153	01-22-1985	MINORU MIDORIKAWA	
	US-4,495,453	01-22-1985	HAJIMU INABA	
	US-4,500,394	02-19-1985	JOHN S. RIZZO	
	US-4,529,480	07-16-1985	Trokhan	
	US-4,541,895	09-17-1985	Albert	
	US-4,566,847	01-28-1986	TAKASHI MAEDA	
	US-4,576,685	03-18-1986	Goffredo et al.	
	US-4,576,689	03-18-1986	ALMAXUD M. MAKKAEV	
	US-4,585,539	04-29-1986	Edson	
	US-4,604,177	08-05-1986	OLIVO G. SIVILOTTI	
	US-4,604,178	08-05-1986	DALE R. FIEGENER	
	US-4,634,503	01-06-1987	DANIEL NOGAVICH	
	US-4,639,028	01/1987	Olson	
	US-4,670,126	06/1987	Messer et al.	
	US-4,685,414	08-11-1987	DiRico	
	US-4,687,552	08-18-1987	Early et al.	
	US-4,693,017	09-15-1987	Oehler et al.	
	US-4,696,729	09-29-1987	Santini	
	US-4,715,934	12-29-1987	Tamminen	
	US-4,741,624	05-03-1988	Barroyer	
	US-4,760,671	08-02-1988	WILLIAM R. WARD	

Examiner  
SignatureDate  
Considered

2/18/2005



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

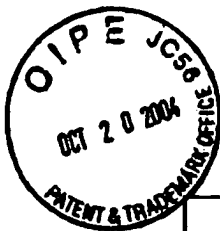
Application Number	09/866,391-Conf. #4952
Filing Date	May 24, 2001
First Named Inventor	Gregory J. Wilson
Art Unit	1742
Examiner Name	W. A. Nicolas
Attorney Docket Number	291958157US2

Sheet	3	of	10
-------	---	----	----

	US-4,761,214	08-02-1988	EDMUND R. HINMAN	
	US-4,770,590	09/1988	Hugues et al.	
	US-4,781,800	11-01-1988	LEE M. GOLDMAN	
	US-4,800,818	01-31-1989	Kawaguchi et al.	
	US-4,828,654	05-09-1989	RONALD G. REED	
	US-4,849,054	07-18-1989	Klowak	
	US-4,858,539	08-22-1989	Schumann	
	US-4,864,239	09-05-1989	Casarcia et al.	
	US-4,868,992	09-26-1989	Crafts et al.	
	US-4,898,647	02/1990	Luce et al.	
	US-4,906,341	03-06-1990	KOJI YAMAKAWA	
	US-4,913,035	08-02-1988	Vohringer et al.	
	US-4,924,890	05-15-1990	Giles et al.	
	US-4,944,650	07/1990	Matsumoto	
	US-4,951,601	08-28-1990	Maydan et al.	
	US-4,959,278	09-25-1990	HIDENORI SHIMAUCH	
	US-4,962,726	10-16-1990	Matsushita et al.	
	US-4,979,464	12-25-1990	Kunze-Concewitz et al.	
	US-5,000,827	03-19-1991	VIRGIL E. SCHUSTER	
	US-5,024,746	06-18-1991	Stierman et al.	
	US-5,026,239	06-25-1991	Chiba	
	US-5,048,589	09-17-1991	Cook et al.	
	US-5,054,988	10-08-1991	Shiraiwa	
	US-5,055,036	10-08-1991	Asano et al.	
	US-5,061,144	10-29-1991	MASAMI AKIMOTO	
	US-5,069,548	12-03-1991	Boehnlein	
	US-5,078,852	01-07-1992	IAN Y.K. YEE	
	US-5,083,364	01-28-1992	Olbrich et al.	
	US-5,096,550	03-17-1992	STEVEN T. MAYER	
	US-5,110,248	05-05-1992	Asano et al.	
	US-5,115,430	05-19-1992	ELLEN L. HAHNE	
	US-5,125,784	06-30-1992	Asano	
	US-5,128,912	07/1992	Hug et al.	
	US-5,146,136	09-08-1992	TOSHIO OGURA	
	US-5,151,168	09-29-1992	TERRY L. GILTON	
	US-5,155,336	10-13-1992	Gronet et al.	
	US-5,156,174	10-20-1992	RAYMON F. THOMPSON	
	US-5,156,730	10-20-1992	ANILKUMAR C. BHATT	
	US-5,168,886	12-08-1992	Thompson et al.	
	US-5,168,887	12-08-1992	Thompson et al.	
	US-5,168,887	12-08-1992	RAYMON F. THOMPSON	
	US-5,169,408	12-08-1992	Biggerstaff et al.	
	US-5,172,803	12-22-1992	Lewin	
	US-5,174,045	12-29-1992	Thompson et al.	
	US-5,178,512	01/1993	Skrobak	
	US-5,178,639	01-12-1993	Nishi	
	US-5,180,273	01-19-1993	Salaya et al.	
	US-5,183,377	02-02-1993	Becker et al.	
✓	US-5,186,594	02-16-1993	Toshima et al.	

Examiner  
SignatureDate  
Considered

2/18/2005



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	09/866,391-Conf. #4952
Filing Date	May 24, 2001
First Named Inventor	Gregory J. Wilson
Art Unit	1742
Examiner Name	W. A. Nicolas
Attorney Docket Number	291958157US2

Sheet	4	of	10
-------	---	----	----

	US-5,209,817	05-11-1993	UMAR M. AHMAD	
	US-5,217,586	06-08-1993	MADHAV DATTA	
	US-5,222,310	06-29-1993	RAYMON F. THOMPSON	
	US-5,227,041	07-13-1993	BRUCE N. BROGDEN	
	US-5,228,232	07-20-1993	RODNEY MILES	
	US-5,228,966	07-20-1993	SATOSHI MURATA	
	US-5,230,371	07-27-1993	Lee	
	US-5,232,511	08-03-1993	Bergman	
	US-5,235,995	08-17-1993	Bergman et al.	
	US-5,238,500	08-24-1993	Bergman	
	US-5,252,137	10-12-1993	Tateyama et al.	
	US-5,252,807	10-12-1993	Chizinsky	
	US-5,256,262	10-26-1993	Blomsterberg	
	US-5,256,274	10-26-1993	JAIME PORIS	
	US-5,271,953	12-21-1993	Litteral	
	US-5,271,972	12-21-1993	Kwok et al.	
	US-5,301,700	04-12-1994	Kamikawa et al.	
	US-5,302,464	04-12-1994	TAKUJI NOMURA	
	US-5,306,895	04-26-1994	Ushikoshi et al.	
	US-5,314,294	09-24-1994	TAKAO TANIGUCHI	
	US-5,316,642	05-31-1994	DAVID J. YOUNG	
	US-5,326,455	07/1994	Kubo et al.	
	US-5,330,604	07-19-1994	Allum et al.	
	US-5,332,271	07-26-1994	Grant et al.	
	US-5,332,445	07-26-1994	Bergman	
	US-5,340,456	08-23-1994	Mehler	
	US-5,344,491	09-06-1994	MARIKO KATOU	
	US-5,348,620	09-20-1994	Hermans et al.	
	US-5,364,504	11-15-1994	Smurkoski et al.	
	US-5,366,785	11-22-1994	Sawdai	
	US-5,366,786	11-22-1994	Connor et al.	
	US-5,368,711	11-29-1994	JAIME PORIS	
	US-5,372,848	12-13-1994	KIM J. BLACKWELL	
	US-5,376,176	12-27-1994	ATSUSHI KURIYAMA	
	US-5,377,708	01-03-1995	Bergman et al.	
	US-5,388,945	02-14-1995	Garric et al.	
	US-5,391,285	02-21-1995	WILLIAM H. LYTLE	
	US-5,391,517	02-21-1995	Gelatos et al.	
	US-5,405,518	04-11-1995	Hsieh et al.	
	US-5,411,076	05-02-1995	Matsunaga et al.	
	US-5,421,987	06-06-1995	Tzanavaras et al.	
	US-5,427,674	06-27-1995	Langenskiold et al.	
	US-5,429,686	07-04-1995	Chiu et al.	
	US-5,429,733	07-04-1995	HIROFUMI ISHIDA	
	US-5,431,803	07-11-1995	DiFranco et al.	
	US-5,437,777	08-01-1995	SHUJI KISHI	
	US-5,441,629	08-15-1995	Kosaki	
	US-5,442,416	08-15-1995	Tateyama et al.	
✓	US-5,443,707	08-22-1995	Mori	

Examiner Signature		Date Considered	2/18/2005
--------------------	--	-----------------	-----------



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2008. OMB 0851-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	09/866,391-Conf. #4952
Filing Date	May 24, 2001
First Named Inventor	Gregory J. Wilson
Art Unit	1742
Examiner Name	W. A. Nicolas
Attorney Docket Number	291958157US2

Sheet	5	of	10
-------	---	----	----

	US-5,445,484	08-29-1995	Kato et al.	
	US-5,447,615	09-05-1995	Ishida	
	US-5,454,405	10-03-1995	Hawes	
	US-5,460,478	10-24-1995	Akimoto et al.	
	US-5,464,313	11-07-1995	Ohsawa	
	US-5,472,502	12-05-1995	WILLIAM T. BATCHELDER	
	US-5,489,341	02-06-1996	Bergman et al.	
	US-5,500,081	03-19-1996	Bergman	
	US-5,501,768	03-26-1996	Hermans et al.	
	US-5,508,095	04-16-1996	Allum et al.	
	US-5,512,319	04-30-1996	Cook et al.	
	US-5,514,258	05-07-1996	Brinket et al.	
	US-5,516,412	02-06-1996	Andricacos et al.	
	US-5,522,975	06/1996	Andricacos et al.	
	US-5,527,390	06-18-1996	Ono et al.	
	US-5,544,421	08-13-1996	Thompson et al.	
	US-5,549,808	08-27-1996	MUKTA S. FAROOQ	
	US-5,567,267	10-22-1996	Kazama et al.	
	US-5,571,325	11-05-1996	TSUTOMU UYEYAMA	
	US-5,575,611	11-19-1996	Thompson et al.	
	US-5,584,310	12-17-1996	ERIC J. BERGMAN	
	US-5,584,971	12-17-1996	Komino	
	US-5,593,545	01-14-1997	Rugowski et al.	
	US-5,597,460	01-28-1997	H. VINCENT REYNOLDS	
	US-5,597,836	01-28-1997	Hackler et al.	
	US-5,600,532	02-04-1997	Michiya et al.	
	US-5,609,239	03-11-1997	Schlecker	
	US-5,620,581	04-15-1997	Ang	
	US-5,639,206	06-17-1997	Oda et al.	
	US-5,639,316	06-17-1997	CYRIL CABRAL	
	US-5,641,613	06-24-1997	Boff et al.	
	US-5,650,082	07-22-1997	Anderson	
	US-5,651,823	07-29-1997	Parodi et al.	
	US-5,658,387	08-19-1997	TIMOTHY J. REARDON	
	US-5,660,472	08-26-1997	Peuse et al.	
	US-5,660,517	08/1997	Thompson et al.	
	US-5,662,788	09-02-1997	GURTEJ SANDHU	
	US-5,664,337	09-09-1997	Davis et al.	
	US-5,670,034	09-23-1997	KENNETH J. LOWERY	
	US-5,676,337	10/1997	Giras et al.	
	US-5,677,118	10-14-1997	Spara et al.	
	US-5,678,320	10/1997	Thompson et al.	
	US-5,681,392	10-28-1997	EUGENE A. SWAIN	
	US-5,683,564	11-04-1997	Reynolds	
	US-5,684,654	11-04-1997	Searle et al.	
	US-5,700,127	12-23-1997	Harada et al.	
	US-5,700,127	12-23-1997	JUNJI HARADA	
	US-5,711,646	01/1998	Ueda et al.	
Y	US-5,723,028	03-03-1998	JAIME PORIS	

Examiner  
SignatureDate  
Considered

2/18/2005



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete If Known**

Application Number	09/866,391-Conf. #4952
Filing Date	May 24, 2001
First Named Inventor	Gregory J. Wilson
Art Unit	1742
Examiner Name	W. A. Nicolas
Attorney Docket Number	291958157US2

Sheet	6	of	10
-------	---	----	----

	US-5,731,678	03-24-1998	Zila et al.	
	US-5,744,019	04-28-1998	Ang	
	US-5,746,565	05/1998	Tepolt	
	US-5,747,098	05-05-1998	Larson	
	US-5,754,842	05-19-1998	EIJI MINAGAWA	
	US-5,755,948	05-26-1998	Lazaro et al.	
	US-5,759,006	06/1998	Miyamoto et al.	
	US-5,762,751	06-09-1998	MARTIN C. BLECK	
	US-5,765,444	06-16-1998	PAUL BACCHI	
	US-5,765,889	06/1998	Nam et al.	
	US-5,776,327	07-07-1998	Botts et al.	
	US-5,785,826	07-28-1998	ALEX GREENSPAN	
	US-5,788,829	08-04-1998	Joshi et al.	
	US-5,802,856	08-09-1998	Schaper et al.	
	US-5,829,791	11-03-1998	Kotsubo et al.	
	US-5,843,296	12-01-1998	Greespan	
	US-5,871,626	02-16-1999	DOUGLAS E. CRAFTS	
	US-5,871,805	01-01-2001	JEROME LEMELSON	
	US-5,882,498	03-16-1999	VALERY DUBIN	
	US-5,892,207	04-06-1999	Kawamura et al.	
	US-5,904,827	05-18-1999	Reynolds	
	US-5,908,543	06-01-1999	TAKASHI MATSUNAMI	
	US-5,925,227	07/1999	Kobayashi et al.	
	US-5,932,077	08-03-1999	H. VINCENT REYNOLDS	
	US-5,937,142	08-10-1999	Moslehi et al.	
	US-5,957,836	09-28-1999	Johnson	
	US-5,980,706	11-09-1999	MARTIN BLECK	
	US-5,985,126	11-16-1999	MARTIN C. BLECK	
	US-5,989,406	11-23-1999	CHARLES P. BEETZ	
	US-5,998,123	12-07-1999	Tanaka et al.	
	US-6,001,235	12-14-1999	Arken et al.	
	US-6,004,828	12-21-1999	KYLE M. HANSON	
	US-6,017,820	01-25-2000	Ting et al.	
	US-6,027,631	02-22-2000	ELIOT K. BROADBENT	
	US-6,053,687	04-25-2000	THOMAS I. KIRKPATRICK	
	US-6,072,160	06-06-2000	Bahl	
	US-6,072,163	06-06-2000	Armstrong et al.	
	US-6,074,544	06-13-2000	JONATHAN D. REID	
	US-6,080,288	06-27-2000	Schwartz et al.	
	US-6,080,291	06-27-2000	Woodruff et al.	
	US-6,080,691	06-27-2000	Lindsay et al.	
	US-6,086,680	07-11-2000	Foster et al.	
	US-6,090,260	07-18-2000	SATOSHI INOUE	
	US-6,091,498	07-18-2000	KYLE HANSON	
	US-6,099,702	08-08-2000	JONATHAN D. REID	
	US-6,099,712	08-08-2000	THOMAS L. RITZDORF	
	US-6,103,085	08-15-2000	Woo et al.	
	US-6,107,192	08-22-2000	Subrahmanyam et al.	
	US-6,108,937	08-29-2000	Raajmakers	

Examiner  
SignatureDate  
Considered

2/18/2005



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	09/866,391-Conf. #4952
Filing Date	May 24, 2001
First Named Inventor	Gregory J. Wilson
Art Unit	1742
Examiner Name	W. A. Nicolas
Attorney Docket Number	291958157US2

Sheet	7	of	10
-------	---	----	----

	US-6,110,011	08-29-2000	SASSON SOMEKH	
	US-6,110,346	08-29-2000	JONATHAN D. REID	
	US-6,130,415	10-10-2000	Knoot	
	US-6,136,163	10-24-2000	ROBIN CHEUNG	
	US-6,139,703	10-31-2000	Hanson et al.	
	US-6,139,712	10-31-2000	EVAN E. PATTON	
	US-6,140,234	10-31-2000	Uzoh et al.	
	US-6,143,147	11-07-2000	Jelinek	
	US-6,143,155	01-01-2001	JOHN A. ADAMS	
	US-6,156,167	12-05-2000	EVAN E. PATTON	
	US-6,157,106	12-05-2000	Tietz et al.	
	US-6,159,354	12-12-2000	ROBERT J. CONTOLINI	
	US-6,162,344	12-19-2000	JONATHAN D. REID	
	US-6,168,695	01-02-2001	DANIEL J. WOODRUFF	
	US-6,174,425	01-16-2001	CINDY R. SIMPSON	
	US-6,174,796	01-16-2001	Takagi et al.	
	US-6,179,983	01-30-2001	JONATHAN DAVID REID	
	US-6,184,068	02-06-2001	Ohtani et al.	
	US-6,193,859	02-27-2001	ROBERT J. CONTOLINI	
	US-6,709,562	01-01-2001	PANAYOTIS C. ANDRICACOS	
	US-6,755,954	06-29-2004	Mayer et al.	
	US-6,773,571	08-10-2004	Steven Mayer	
	US-60/129,055		McHugh	
	US-60/143,769		McHugh	
	US-60/182,160		McHugh et al.	
	US-60/206,663		Wilson et al.	
	US-60/294,690		Gibbons et al.	
	US-60/316,597		Hanson	
	US-60/607,046		Klocke	
	US-60/607,460		Klocke	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> -Number <sup>3</sup> -Kind Code <sup>4</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
		CA-873651	06/1971	Cronin, DC		
		DE-195 25 666	10-02-1996	Huebsch et al.		
		EP-0 140 404 A1	08-16-1984	The Proctor & Gamble Co.		
		EP-0 257 670	03-02-1988	Estham et al.		
		EP-0 290 210	11-09-1988	Oki Electric Industry Co.		
		EP-0 677 612 A2	10-18-1995	Kimberly-Clark Corp.		
		EP-0 677 612 A3	10-18-1985	Kimberly-Clark Corp.		
		EP-0 881 673 A2	05-08-1998	Intl Business Machines Corp		
		EP-0 982 771 A1	08-17-1999	Lucent Technologies, Inc.		
		EP-0047132 B1	07-03-1985	Heraeus Quarzschmelze		
		EP-0290210	11-09-1988	Oki Electric Industry Co.		
		EP-0452939 B1	11-02-2000	Applied Materials, Inc.		
		EP-0544311 B1	05-15-1996	Dainippon Screen Mfg. Co. Ltd		
		EP-0582019 B1	10-18-1995	Intl Business Machines		

Examiner Signature	Date Considered	2/18/2005
-----------------------	--------------------	-----------



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	09/866,391-Conf. #4952
Filing Date	May 24, 2001
First Named Inventor	Gregory J. Wilson
Art Unit	1742
Examiner Name	W. A. Nicolas
Attorney Docket Number	291958157US2

Sheet	8	of	10
-------	---	----	----

	EP-1 069 213 A2	07-11-2000	Applied Materials Inc.		
	GB-2 254 288 A	03-24-1992	Scapa Group Pic		
	GB-2 279 372A	06-23-1994	Kimberly-Clark Corp.		
	GB-2217107A	03-23-1989	Canon Kabushiki Kaisha		
	GB-41 14 427	11-05-1992	Moritz, Heiko		
	JP-10-083960	03-31-1998	Takashi		
	JP-1048442	02-22-1989	Texas Instru Japan		
	JP-11036096-A	02-09-1999	NEC Corp		
	JP-11080993-A	03-26-1999	Ebara Corp		
	JP-4144150	05-18-1992	Oki Electric Ind Co Ltd		
	JP-4311591	11-04-1992	Sumitomo Metal Ind. Ltd.		
	JP-5146984	06-15-1993	Murata Mach Ltd.		
	JP-5195183-A	08-03-1993	Mitsubishi Electric Corp		
	JP-5211224	08-20-1993	Texan Instr Japan		
	JP-6017291-A	01-25-1994	NEC Corp		
	JP-6073598-A	03-15-1994	Suganuma Keiichiro		
	JP-6224202-A	08-12-1994	Oki Electric Ind Co. Ltd.		
	JP-7113159-A	05-02-1995	Canon Inc.		
	JP-7197299-A	08-01-1995	Casio Computer Co. Ltd.		
	WO-00/02675	01-02-2000	Semitool, Inc.		
	WO-00/02808	01-20-2000	Semitool, Inc.		
	WO-00/02808 A1	01/2000	Semitool Inc.		
	WO-00/03072	01-20-2000	Woodruff et al.		
	WO-00/32835	06-08-2000	Dordi et al.		
	WO-00/61498	10-19-2000	Wilson et al.		
	WO-00/61837	10-19-2000	Wilson et al.		
	WO-01/46910				
	WO-01/90434	11-29-2001	Semitool, Inc.		
	WO-01/91163	11-29-2001	Semitool, Inc.		
	WO-02/02808	01-20-2000	Semitool, Inc.		
	WO-02/045476	06-13-2002	Semitool, Inc.		
	WO-02/097165	12-05-2002	Semitool, Inc.		
	WO-02/099165	12-12-2002	Semitool, Inc.		
	WO-02/17203				
	WO-02/97165	12-05-2002	Semitool, Inc.		
	WO-02/99165	12-12-2002	Semitool, Inc.		
	WO-03/18874	09-03-2002	Semitool, Inc.		
	WO-90/00476	01-25-1990	Tuckerman		
	WO-91/04213	04-04-1991	Wong et al.		
	WO-95/06326	03-02-1995	Semitool, Inc.		
	WO-95/20064	07-27-1995	Berg		
	WO-99/16936	04-08-1996	Semitool, Inc.		
	WO-99/25904	05-27-1999	Reid et al.		
	WO-99/25905	05-27-1999	Patton et al.		
	WO-99/40615	08-12-1999	Ritzdorf et al.		
	WO-99/41434	08-19-1999	ACM Research, Inc.		
	WO-99/45745	09-10-1999	Armstrong et al.		
	WO-99/16936	04-08-1996	Semitool, Inc.		

Examiner  
SignatureDate  
Considered

2/18/2005





PTO/SB/08a/b (08-03)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449A/B/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	09/866,391-Conf. #4952
				Filing Date	May 24, 2001
				First Named Inventor	Gregory J. Wilson
				Art Unit	1742
				Examiner Name	W. A. Nicolas
Sheet	9	of	10	Attorney Docket Number	291958157US2

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those patent(s) or publication(s) which are marked with an asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(e)) because that application was filed after June 30, 2003. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds-Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 801.04. <sup>3</sup> Enter Office that issued the document by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		CONTOLINI ET AL., "Copper Electroplating Process for Sub-Half-Micron ULSI Structures," VMIC Conference 1995 ISMIC - 04/95/0322, pgs 322-328, June 17-29, 1995	
		DEVARAJ et al., "Pulsed Electrodeposition of Copper," Plating & Surface Finishing, Pgs 72-78, August 1992	
		DUBIN, "Copper Plating Techniques for ULSI Metallization," Advanced MicroDevices	
		DUBIN, V.M., "Electrochemical Deposition of Copper for On-Chip Interconnects," Advanced MicroDevices	
		GAUVIN et al., "The Effect of Chloride Ions on Copper Deposition," J. of Electrochemical Society, Vol 99, pgs 71-75, February 1952	
		LEE, Tien-Yu Tom et al., "Application of a CFD Tool in Designing a Fountain Plating Cell for Uniform Bump Plating of Semiconductor Wafers," IEEE Transactions on Components, Packaging and Manufacturing Technology, February 1996, pp 131-137, Vol 19, No. 1	
		LEE, TIEN-YU TOM et al., "Application of a CFD Tool in Designing a Fountain Plating Cell for Uniform Bump Plating of Semiconductor Wafers," IEEE Transactions On Components, Packaging and Manufacturing Technology - Part B, February 1996, pp 131-137, Vol 19, No. 1, IEEE	
		LEE, TIEN-YU TOM, "Application of a CFD Tool in Designing a Fountain Plating Cell for Uniform Bump Plating of Semiconductor Wafers," IEE Transactions on Components, Packaging, and Manufacturing Technology (February 1996), Vol. 19, No. 1, IEEE	
		LOWENHEIM, FREDERICK A., "Electroplating," January 1979, 12 pgs, McGraw-Hill Book Company, USA	
		LOWENHEIM, Frederick A., "Electroplating Electrochemistry Applied to Electroplating," 1978, pp 152-155, McGraw-Hill Book Company, New York	
		OSSRO, N.M., "An Overview of Pulse Plating," Plating and Surface Finishing, March 1986	
		PASSAL, F., "Copper Plating During the Last Fifty Years," Plating, pgs 628-638, June 1959	
		PATENT ABSTRACT OF JAPAN, "Organic Compound and its Application," Publication No. 08-003153, Publication Date: January 9, 1996	
		PATENT ABSTRACT OF JAPAN, "Partial Plating Device," Publication No. 01234590, Publication Date: Sept 19, 1989	
		PATENT ABSTRACT OF JAPAN, "Plating Method" Publication No. 57171690, Publication Date: October 22, 1982	
		PATENT ABSTRACT OF JAPAN, English Abstract Translation - Japanese Utility Model No. 2538705, Publication Date: August 25, 1992	
		PCT International Search Report for PCT/US02/17840, Applicant: Semitool, Inc., March 2003, 5 pages	
		RITTER et al., "Two- Three-Dimensional Numerical Modeling of Copper Electroplating For Advanced ULSI Metallization," E-MRS Conference Symposium M. Basic Models to Enhance Reliability, Strabourg (FRANCE) 1999	
	RITTER, G., et al., "Two-And Three-Dimensional Numerical Modeling of Copper Electroplating		

Examiner Signature	Date Considered	2/18/2005
--------------------	-----------------	-----------



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2008. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449A/B/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	09/866,391-Conf. #4952
				Filing Date	May 24, 2001
				First Named Inventor	Gregory J. Wilson
				Art Unit	1742
				Examiner Name	W. A. Nicolas
				Attorney Docket Number	291958157US2
Sheet	10	of	10		

	for Advanced ULSI Metallization," June 1999, 13 pgs, E-MRS Conference Symposium M. Basic Models to Enhance Reliability, Strasbourg, France	
	SINGER, P., "Copper Goes Mainstream: Low k to Follow," Semiconductor International, pgs 67-70, November 1997	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	2/18/2005
--------------------	--	-----------------	-----------